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nerally found, that lands most subject to stagnant ponds, have but a shallow stratum of clay, over the sand.

All that is necessary, therefore, is to dig a pit in the bottom of the pond, till you arrive at this stratum of sand, when the water will be immediately absorbed, and the pond emptied. Should there be too much water to permit a hole to be dug within the pond, it may be made at the edge of it, the communication afterwards made by a trench. It would be prudent not to make the sides of the pit so steep, as to prevent cattle from getting out, should they happen to go in.

The writer does not pretend to be the original author of this invention; the idea was suggested to him, by seeing it practised by a farmer, who enjoyed the benefit, though he did not appear to know the cause

N°. XXXVII.

Observations on the severity of the winter 1779, 1780, by the Rev. MATHEW WILSON of Lewis, dated 22d June 1780.

Read June 1781. **T**H E extreme cold made great devastations on the animal and vegetable kingdoms. Such observations as were in my power to make, are,

1. The moles generally perished, many were found dead above ground.

2. The bees are almost all destroyed, but few hives have escaped.

3. The frogs suffered greatly, it is supposed that at least two thirds of the species were cut off.

4. Our shell fish of all kinds, that run in shoal waters, were destroyed; after the thaw the air was infected by their putrifaction.

5. Bugs

5. Bugs, musketoos, &c. &c. have generally died.
6. The grasshoppers I suspect are gone, not having yet seen any.
7. Some snakes yet live, but they are not so numerous as formerly.

A multiplicity of business prevented me from extending these observations; but if I had had leisure, I should doubtless have discovered many more animals and insects that suffered from the same cause.

8. I must add something remarkable respecting fish, though I know not whether to refer it to the cold or some other cause.

From 14th to 24th of May after continued easterly winds, fish were driven on the coast in such abundance that in Rehoboth only two or three hundred bushels were daily collected and eaten by the people. Some seemed at first to be alive, but far the greater part were dead, and many had one eye picked out by the birds while floating on the water. The sound, or air bladder, of them all was remarkably distended, so that they could not sink in the water; this seemed to be the cause of their death. These fish were generally sea crocus, a few cats and some sea trout.

The vegetable seems to have suffered more than the animal kingdom.

Rosemary, of which there were many large and flourishing hedges, is totally extinct.

The *Pink* is destroyed, except a few small roots, covered with leaves, in narrow places.

Grape Vines both native and foreign are killed, except where they were sheltered from the winds.

Most of the ever greens, the small *Laurel*, the *Holly*, the *Juniper*, *Bear bushes* and some small *pin*es have suffered in the general calamity; and what is still more remarkable

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ble many young *black oaks* and some *white oaks* from twelve feet high and under are dead, in bleak places.

Sage, Rue, Lavender, Prickley pears, Southern wood and *Silk grass* (a species of the *Aloes*) are dead to the roots. *Comfrey roots* and *Parsley* are much damaged, and the *Catauba* tree is killed in all its smaller branches. Two thirds of the *Wheat* and *Rye* in our country are lost, and *Hoar bound*, which generally grows all winter, is destroyed.

In the salt marshes I found the large *triangular grass* and the *bent grass* generally dead from the roots. The marsh at present (June) looks red and seems rotten.

N . XXXIX.

A Description of a new Standard for Weights and Measures, (in a Letter from Mr. JOHN COOKE, of Tipperary in Ireland, to THOMAS JEFFERSON, Esq.

Dated Mar.
28, 1791.

THE want of uniformity in weights and measures is a subject of general complaint at present ; it is an infinite source of fraud, and the great obstacle to domestic and foreign commerce.

The first step necessary to remove this evil, is to appoint an universal, perpetual, and immutable standard, for length, superficies, weight, and capacity ; whereby the instruments of measurement may be adjusted, and also whereby they may be described to distant countries, and to future ages.

Natural substances are incapable of furnishing one of this description. Every thing in the material world is in a state of gradual alteration, it differs from itself under different circumstances, and differs from every individual of the same species.

General